

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (original): A method of manufacturing a photo mask blank by forming an opaque film or a semi-transmission film on a transparent substrate, said method comprising a step of:

forming said opaque film or said semi-transmission film onto the substrate by irradiating the substrate with an ion generated by an ion generator separately disposed in a film formation chamber during the deposition of the opaque film or the semi-transmission film on the transparent substrate by a sputtering method.

2. (previously presented): The method claimed in claim 1, wherein said step comprises: controlling a film stress of the opaque film or semi-transmission film formed on the substrate;

defining (a warp amount of the substrate after film formation) - (a warp amount of the substrate before the film formation) = (a warp amount of the substrate generated by the film formation); and

suppressing the warp amount of the substrate generated by the film formation to $\pm 0.1 \mu\text{m}$ or less.

3. (original): The method claimed in claim 1, wherein said step comprises: directly introducing an inert gas onto the ion generator from the outside of the film formation chamber; and

ionizing said inert gas by the ion generator to irradiate the substrate with the ion.

4. (original): The method claimed in claim 1, wherein said step comprises: directly introducing a reactive gas into the ion generator from the outside of the film formation chamber; and

ionizing said reactive gas by the ion generator and irradiating the substrate with the ion.

5. (currently amended): A photo mask blank having a sputtered opaque film or

semitransparent film on an ion-irradiated transparent substrate, which is prepared by the method according to claim 1.

6. (currently amended): A photo mask which is prepared by using the photo mask blank having a sputtered opaque film or semitransparent film on an ion-irradiated transparent substrate according to claim 5.

7. (original): A method of reducing a stress of a film formed on a substrate, comprising the steps of:

disposing an ion generator in a chamber together with the substrate; and
irradiating, onto the substrate during depositing the film, an ion generated by an ion generator to relax the stress in the film.

8. (previously presented): The method claimed in claim 7, further comprising the steps of:

measuring a warp of the substrate to define a warp amount;
calculating the stress on the basis of the warp amount; and
adjusting an irradiation condition with reference to the calculated stress so as to keep the stress into a predetermined range.

9. (original): The method claimed in claim 8, wherein the predetermined range falls within $\pm 0.1 \mu\text{m}$.